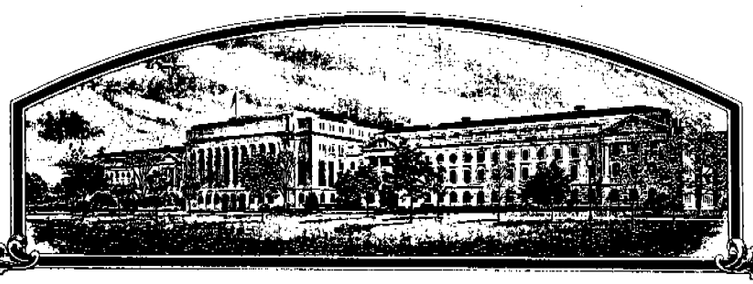

No. 7500086

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Northrup, King & Co.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF seventeen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS D BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'S 1244'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington *this* 28th *day of* January *in the year of our Lord one thousand nine hundred and* seventy-seven

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

FORM GR-470
(12-15-72)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1. VARIETY NAME OR TEMPORARY DESIGNATION	2. KIND NAME	FOR OFFICIAL USE ONLY	
S 1244	Soybeans	PV NUMBER 7500086	
3. GENUS AND SPECIES NAME	4. FAMILY NAME *(Botanical)*	FILING DATE 5·8·75	TIME 2:30 P.M.
Glycine max (L.) Merr.	Leguminosae	FEE RECEIVED $250.00 / $250.00 / $250.00	BALANCE DUE $ — / $ — / $ —
	5. DATE OF DETERMINATION January 1970		

6. NAME OF APPLICANT(S)	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*	8. TELEPHONE AREA CODE AND NUMBER
Northrup, King & Co.	P. O. Box 959 Minneapolis, Minnesota 55440	612-781-8011

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)*	10. STATE OF INCORPORATION	11. DATE OF INCORPORATION
Corporation	Minnesota	1896

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

Allenby L. White
Northrup, King & Co.
P. O. Box 959
Minneapolis, Minnesota 55440

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- [X] 13A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
- [X] 13B. Exhibit B, Botanical Description of the Variety
- [X] 13C. Exhibit C, Objective Description of the Variety
- [X] 13D. Exhibit D, Data Indicative of Novelty
- [X] 13E. Exhibit E, Statement of the Basis of Applicant's Ownership

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? *(See Section 83(a). (If "Yes," answer 14B and 14C below.)* [X] YES [ ] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? [X] YES [ ] NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed? [1] FOUNDATION [1] REGISTERED [1] CERTIFIED

The applicant declares that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes that the variety is distinct, uniform, and stable as required in Section 41 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

May 6 1975
(DATE)

Allenby L White
(SIGNATURE OF APPLICANT)
00001

(DATE)

(SIGNATURE OF APPLICANT)

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $250.00 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, 6525 Belcrest Road, Hyattsville, Maryland 20782. (See Section 180.175 of the regulations and rules of practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

5 Insert the date the applicant determined that he had a new variety based on the definition in Section 41 (a) of the Act and decision is made to increase the seed.

13a First, give the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. Second, give the details of subsequent stages of selection and multiplication. Third, indicate the type and frequency of variants during reproduction and multiplication and state how these variants may be identified. Fourth, provide evidence on stability.

13b First, give any special characteristics of the seed and of the plant as it passes through the seedling stage, flowering stage and the fruiting stage. Second, describe the mature plant and compare it with a similar commercial variety grown under the same conditions, and indicate the differences.

13c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

13d Provide complete data indicative of novelty. Seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty may be submitted. Seeds submitted may be sterile.

13e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

NORTHRUP, KING & CO.
P.O. BOX 49, WASHINGTON, IOWA 52353

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EXHIBIT A

ORIGIN AND BREEDING HISTORY OF S 1244 SOYBEANS

1969 — 60 plants were selected from an F_4 bulk population from the cross 'Corsoy' x 'Wayne'. The population had been advanced to the F_4 generation by harvesting 2 pods from approximately 400 plants in each generation.

1969-70 — Seeds from each selected plant were grown in a progeny row. One of these was designated 9414. Each row was bulk-harvested if uniform.

1970 — 9414 was yield tested at Hudson, Iowa. On the basis of its high yield and maturity, it was chosen as an experimental variety worthy of further testing.

1971 — 9414 was yield tested at Stanton, Minnesota; Homer, Michigan; and Hudson, Iowa. Also, 100 representative plants were harvested individually to be grown as progeny rows in 1972.

1972 — 9414 was yield tested at Stanton, Minnesota; Delavan, Wisconsin; and Dixon, Illinois. One hundred progeny rows were grown, and any rows containing off-type plants were discarded. The rest were bulk-harvested to produce pedigree seed of the variety.

1973 — 9414 was yield tested at Stanton and Minnesota Lake, Minnesota; and Hudson, Dayton, and Washington, Iowa. An increase block was planted from the pedigree seed produced in 1972 and was harvested to produce breeder seed.

1974 — 9414 was tested at all the locations listed for 1973 plus Darien, Wisconsin and Van Wert, Ohio. It was tested in University trials in Iowa, Minnesota, and Wisconsin. A further seed increase was made from the breeder seed produced in 1973. In addition, pedigree seed was produced as in 1972. The pedigree method of maintaining varietal purity will continue as long as the variety is produced.

1975 — 9414 was named S 1244 and released to foundation seed producers. S 1244 is stable and uniform for all normal descriptive characteristics. A very low frequency of variants would be expected through mutation, outcrossing, or mechanical mixture. These will be prevented from becoming a significant constituent of the variety through application of the time-proven pedigree method referred to above.

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EXHIBIT B
BOTANICAL DESCRIPTION OF S 1244 SOYBEANS

I. Seed and Seedling.

Cotyledons of S 1244 are yellow. Seeds have dull yellow seed coats and black hyla. Seeds are fairly large (16.2 grams per 100 vs. 16.0 for Steele, 14.0 for Chippewa 64, and 15.2 for Hodgson averaged over 6 tests). Seed shape is spherical, or similar to most common varieties. Seedling hypocotyl color is purple.

II. Flowering.

When planted about May 15, S 1244 will begin flowering in about 42 days at Washington, Iowa; about the same as for Chippewa 64. Duration of flowering is similar to Chippewa 64, and flowering pattern is similar to other indeterminate, Maturity Group I varieties. Flower color is purple.

III. Fruiting.

Flowering and beginning pod set overlap, as is true of other indeterminate varieties. At full vegetative growth, S 1244 has medium-sized, ovate leaflets which are a medium green color. Canopy type is intermediate between Hark, which is narrow and open, and Chippewa 64, which is bushy and closed.

IV. Disease Reaction.

S 1244 is similar to most northern soybean varieties in its susceptibility to common foliar diseases. It is susceptible to Phytophthora root rot.

V. Mature Plant.

S 1244 has tawny or brown pubescence and brown pods. Plant height is very similar to Chippewa 64 and Steele. Lodging resistance is similar to these varieties. Most pods are 2 or 3 seeded, and there are normally several pods per node, depending upon yield level. In 15 NK trials, S 1244 has an average yield of about 110% of Chippewa 64. It is about 2 days later than Chippewa 64.

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F-167

PV# 7500086

EXHIBIT D

DATA INDICATIVE OF NOVELTY FOR S 1244 SOYBEANS

S 1244 is most similar in appearance and plant habit to Chippewa 64 of the commonly grown maturity Group I varieties. It is susceptible to Phytophthora root rot; Chippewa 64 is resistant. S 1244 has brown pubescence in contrast to the grey pubescent varieties Hark, Steele, Hodgson, Peterson 85, Blackhawk, SRF 150, and A 100. S 1244 can be differentiated from Osage by hilum color (black vs. yellow). S 1244 has normal brown pubescence vs. light brown pubescence for Dunn. S 1244 cannot be differentiated from the less common maturity Group I varieties Chippewa, Wirth, Rampage, and Anoka by pubescence, flower, or hilum color or Phytophthora reaction. S 1244 is significantly later than Chippewa 64, Chippewa, Anoka, or Wirth. It has dull seed coat luster, vs. shiny luster for Chippewa, Chippewa 64, Rampage, Wirth, and Anoka.

PV # 7500086

Data Contrasting S 1244 from other maturity Group I varieties.

	Color of:				Seed Coat luster
	Pubescence	Flower	Hilum	Phytophthora	
S 1244	B	P	Bl	S	D
Chippewa	B	P	Bl	S	S
Chippewa 64	B	P	Bl	R	S
Hark	G	P	Y	S	D
Steele	G	P	Y	R	D
Hodgson	G	P	BF	S	S
Wirth	B	P	Bl	S	S
Osage	B	P	Y	S	-
Rampage	B	P	Bl	S	S
Anoka	B	P	Bl	S	S
Dunn	LB	P	Bl	S	S
Peterson 85	G	P	BF	S	-
Blackhawk	G	W	IB	R	S
SRF 150	G	P	Y	S	-
A 100	G	W	BF	S	S

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P.O. BOX 49, WASHINGTON, IOWA 52353

7500086

EXHIBIT D
DATA INDICATIVE OF NOVELTY FOR S 1244 SOYBEANS

I. Seed.

A. Seed Description.

Seed of S 1244 have dull yellow seed coats, yellow cotyledons, and black hyla, and are spherical in shape.

B. Seed Size.

Variety	Wt. in g per 100 seeds*
S 1244	16.2
Steele	16.0
Chippewa 64	14.0
Hodgson	15.2
Corsoy	13.8

* Average of 6 trials.

C. Chemical Composition of Seed.

Variety	Protein %	Oil %
S 1244	41.4	19.6
Chippewa 64	38.6	20.1
Hark	40.0	20.0
Corsoy	37.6	20.8

II. Leaf and Canopy Characteristics.

S 1244 has medium-sized ovate leaflets which are a medium green color. Leaf size and canopy type are intermediate between Hark, which has small leaflets and a narrow, open canopy, and Chippewa 64, which has larger leaflets and a more bushy, closed canopy.

III. Flower Color is Purple.

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IV. Mature Plant.

A. Description. S 1244 has tawny pubescence and brown pods.

B. Agronomic Data.

Variety	Yield (K/ha) ($\bar{X}_{15}$ 1972-74)	Maturity ($\bar{X}_3$ 1973-74)	Lodging* ($\bar{X}_{11}$ 1973-74)	Height (cm) ($\bar{X}_2$ 1973-74)
S 1244	2603	9-14	1.7	76
Chippewa 64	2366	9-12	1.6	78
Anoka	2386	9-13	2.0	66
Steele		9-15	1.9	76
Hark	2752	9-21	1.8	83

* 1 = erect; 5 = prostrate.

V. Susceptible to Phytophthora root rot.

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FORM GR-470-2
(6-15-72)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (*GLYCINE MAX*)

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
Northrup, King & Co.

ADDRESS *(Street and No., or R.F.D. No.; City, State, and ZIP Code)*
P. O. Box 959
Minneapolis, Minnesota 55440

FOR OFFICIAL USE ONLY
PVPO NUMBER 7500086
VARIETY NAME OR TEMPORARY DESIGNATION
S 1244

Place the appropriate number that describes the varietal character of this variety in the boxes below.

1. SEED SHAPE: [1] 1 = SPHERICAL 2 = SPHERICAL FLATTENED 3 = ELONGATE 4 = OTHER *(Specify)*

2. SEED COAT COLOR: [1] 1 = YELLOW 2 = GREEN 3 = BROWN 4 = BLACK 5 = OTHER *(Specify)* ____
SHADE: [2] 1 = LIGHT 2 = MEDIUM 3 = DARK

3. SEED COAT LUSTER: [1] 1 = DULL 2 = SHINY

4. SEED SIZE [16] GRAMS PER 100 SEEDS

5. HILUM COLOR: [6] 1 = BUFF 2 = YELLOW 3 = BROWN 4 = GRAY 5 = IMPERFECT BLACK 6 = BLACK 7 = OTHER *(Specify)* ____
SHADE: [3] 1 = LIGHT 2 = MEDIUM 3 = DARK

6. COTYLEDON COLOR: [1] 1 = YELLOW 2 = GREEN

7. LEAFLET SIZE *(See Reverse):* [2] 1 = SMALL 2 = MEDIUM 3 = LARGE

8. LEAFLET SHAPE: [1] 1 = OVATE 2 = OBLONG 3 = LANCEOLATE 4 = ELLIPTICAL 5 = OTHER *(Specify)*

9. LEAF COLOR *(See reverse):* [2] 1 = LIGHT GREEN 2 = MEDIUM GREEN 3 = DARK GREEN

10. FLOWER COLOR: [2] 1 = WHITE 2 = PURPLE 3 = OTHER *(Specify)* ____

11. POD COLOR: [2] 1 = TAN 2 = BROWN 3 = BLACK

12. POD SET: [2] 1 = SCATTERED 2 = CONCENTRATED

13. PLANT PUBESCENCE COLOR: [2] 1 = GRAY 2 = BROWN 3 = OTHER *(Specify)* ____
SHADE: [2] 1 = LIGHT 2 = MEDIUM 3 = DARK

14. PLANT TYPES *(See Reverse):* [3] 1 = SLENDER 2 = BUSHY 3 = INTERMEDIATE

15. PLANT HABIT: [2] 1 = DETERMINATE 2 = INDETERMINATE 3 = OTHER *(Specify)* ____

16. HYPOCOTYL COLOR: [2] 1 = GREEN 2 = PURPLE

17. SEED PROTEIN: [ ] 1 = A 2 = B

18. NUMBER OF DAYS TO FLOWERING *(Place a zero in first box (e.g. [0][9]) when days are 9 or less.)* [42]

19. MATURITY GROUP: [3] 1 = 00 2 = 0 3 = I 4 = II 5 = III 6 = IV 7 = V 8 = VI 9 = VII 10 = VIII

20. SIZE OF 10 DAY OLD SEEDLING GROWN UNDER CONSTANT LIGHT *(Growth Chamber)* **AT 25° C.** *(Place a zero in first box (e.g. [0][2]) when size is 9 mm. or less.)*

[ ][ ][ ] MM. LENGTH OF SEEDLING
[ ][ ] MM. LENGTH OF COTYLEDON
[ ][ ] MM. WIDTH OF COTYLEDON

21. DISEASE: *(Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)*

[1] BACTERIAL PUSTULE	[0] SOYBEAN CYST	[0] DOWNY MILDEW	[1] PURPLE STAIN	[1] POD AND STEM BLIGHT	[0] ROOT KNOT
[0] FROGEYE	[1] STEM CANKER	[1] PHYTO-PHTHORA	[1] BROWN STEM ROT	[0] TARGET SPOT	[1] BROWN SPOT
[0] BUD BLIGHT	[0] WILDFIRE	[1] RHIZOCTONIA ROT	[ ] OTHER *(Specify)* ____		

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NORTHRUP, KING & CO.
P.O. BOX 49, WASHINGTON, IOWA 52353

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EXHIBIT E
STATEMENT OF THE BASIS OF APPLICANT'S OWNERSHIP

The soybean variety, S 1244, was developed by Northrup, King & Co.'s breeding staff at its Washington, Iowa research farm from germ plasm sources cited in Exhibit A of this application. Northrup, King & Co. believes that the variety it has created is novel as defined in the Plant Variety Protection Act and, therefore, that Northrup, King & Co. is the sole owner of the variety.

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FORM GR-470-2 (REVERSE) 7500086

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant shape	Corsoy	Petiole angle	Corsoy
Leaf shape	Corsoy	Seed size	Steele
Leaf color	Chippewa 64	Seed shape	Steele
Leaf surface	Corsoy	Seedling pigmentation	Chippewa 64

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY:

VARIETY	NO. OF DAYS TO MATURITY	LODGING SCORE	PLANT HEIGHT	LEAF SIZE		CONTENT		AVERAGE NO. OF PODS PER PLANT	IODINE NO.
				Width	Length	Protein	Oil		
Submitted	122	1.7	76 cm	50 mm	94 mm	41.4	19.6 %	18 @ 350000plt/ha	
Name of similar variety Chippewa 64	120	1.6	78 cm	57 mm	88 mm	38.6	20.1	19 @ 350000plt/ha	

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for completing this form:

1. Scott, Walter O. and Samuel R. Aldrich, 1970, Modern Soybean Production, The Farmer Quarterly.
2. Norman, A. G., 1963, The Soybean: Genetics, Breeding, Physiology, Nutrition, Management.
3. McKie, J. W., and K. L. Anderson, 1970, The Soybean Book.

LEAF COLOR: Nickerson's or any recognized color fan may be used to determine the leaf color of the described variety. The following Soybean varieties may be used as a guide to identify the colors listed on the form.

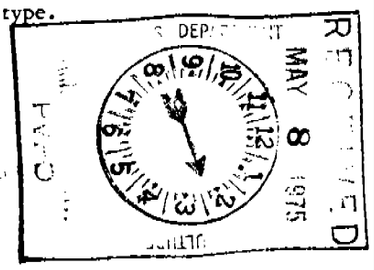
COLOR	VARIETY
Light Green	"Ada"
Medium Green	"Wilkin"
Dark Green	"Swift"

LEAF SIZE: The following varieties may be used as a guide to identify the relative size leaves.

SIZE	VARIETY
Small	"Amsoy"
Medium	"Bonus"
Large	"Anoka"

PLANT TYPE: The following varieties may be used as a guide to identify the plant type.

TYPE	VARIETY
Slender	"Vansoy"
Intermediate	"Wirth"
Bushy	"Adelphia"



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